

Full Length Research Paper

Rural youth outmigration, remittance and its impacts on migrant-sending households in Gojjam and Wolayta, Ethiopia

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Received 8 September, 2016; Accepted 3 November, 2016

Rural outmigration of young people from densely populated agricultural areas is a common phenomenon throughout Ethiopia. The objective of this study was to assess the impacts of remittances from out-migrant young people on the migrant-sending rural households. Primary data were gathered through a survey that covered 300 migrant-sending households; and from in-depth interviews. The findings revealed that migrant-family linkages are expressed in terms of remittances, gifts and visits. Remittances, though small and irregular, are considered important by the migrant-sending households. Remittances are predominantly used to purchase farm inputs and implements; buy clothing and household goods/furniture; and repay loans and for land tax payment. Remittances enhance rates of asset formation and technological change, increase levels of consumption, reduce necessity to incur debt and improve debt repayment position, and augment family member's education and medication. The results from multiple linear regression analysis revealed that the leading determinants of the amounts of remittances received by the migrant-sending households were number of migrant members, number of times the household received money within a year; and type of job the migrant is engaged in a destination. The study underscored the positive impacts of internal migration in terms of rural households' livelihoods enhancement.

Key words: Youth, outmigration, migrant-sending household, remittance.

INTRODUCTION

Migration is an old and inevitable phenomenon that has been proceeding at an accelerated rate because of improvements in transportation and communication technology. Migration is considered as the permanent or semi-permanent movement of people crossing a defined political boundary within or between countries (UN 1958 cited in Central Statistical Agency /CSA/ 1999). Migration

occurs as a result of human curiosity or some push conditions in the area of origin and/or real or perceived attractive circumstances in a destination (Oberari & Singh 1983; Woldie et al., 2010).

Rural outmigration could be triggered by numerous factors. Intensifying population pressure and the attendant scarcity and fragmentation of farmland as well

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as land degradation (Caldwell 1969; Tesfaye, 2004); and limited non-agricultural employment opportunities engender outmigration (Lynch, 2005; Ayalew, 2010). Impoverished rural life and unfavourable working conditions and the resultant dissatisfaction of rural youth with rural life styles generate rural outmigration. Widespread urban oriented education that prepares rural youth to take up urban activities, ease of access to information about places and opportunities elsewhere and improvements in transportation networks increase the propensity to migrate (Bilsborrow et al., 1984; Oberai, 1993; Aina, 1995).

Migration is considered not only as a coping mechanism to escape poverty and improve one's living and working condition and learn new skills, but also as an opportunity for rural youth to feel a sense of pride, and be viewed as modern within the community (Bilsborrow et al., 1984). There is compelling evidence on the positive impacts of internal migration in terms of poverty reduction and livelihoods enhancement through stimulating land and labour markets, transfer of new technologies, harmonization of human-environment relationships, and enhancement of health and education.

On the other hand, the continued drift of young, educated, skilled and energetic agricultural labour force into urban areas, if uncontrolled, is likely to weaken the role of agriculture in particular and the rural economy in general through manpower shortage and reduction of agricultural productivity. It could accelerate local economic distress by reducing its attractiveness to new industry, increases work burden on family members, particularly women and children left behind, and leads to family disintegration (Bilsborrow et al., 1984; Nehme, 2004; Fluerent, 1990 in Worku, 2006).

In Ethiopia where the level of urbanization is very low (about 17%), and where rural-urban and regional socioeconomic disparities are enormous, the perpetual exodus of people from rural areas is not only inevitable but it is also likely to intensify over time. There is scanty literature on the impacts of rural outmigration on migrant-sending origins and households in Ethiopia. Likewise, migration impacts could not be determined a priori and be labeled as negative or positive. It should also be understood that failure to have a comprehensive understanding of human mobility will result in an insufficient understanding of what people do to make a living and how policy can help them to maximize the benefits of spatial livelihood strategies.

The objective of this study is, therefore, to bring to light the effects of migration of rural youth on the migrant-sending households' socioeconomic situation in the area of origin.

This study specifically assesses the impacts of (i) youth rural outmigration on the supply of agricultural labour and agricultural practices; looks at the channels, levels and frequency of (ii) remittances and how it is utilized by the (iii) migrant-sending, (iv) households and what impacts do remittances have on the migrant-sending households.

STUDY AREA DESCRIPTION AND RESEARCH METHODS

Study areas

In a migration study, brief presentation of the characteristics of the study area is vital since migration is a function of place attributes. The study was conducted in Mecha *Wereda*⁵ of West Gojjam Zone in the Amhara National Regional State (ANRS, hereafter) and Sodo Zuria *Wereda* of Wolayta Zone in the Southern Nations, Nationalities and Peoples Region (SNNPR, hereafter) that have pronounced youth rural outmigration.

Mecha *wereda* is one of the 133 *weredas* in the ANRS. The *wereda* is divided into 39 rural and 2 urban *kebeles*⁶. The *Wereda's* capital town is located about 34 kilometers south of Bahir Dar (the capital town of ANRS) at 546 kilometers northwest of Addis Ababa. It is a predominantly rural area with only 7.7 level of urbanization (CSA 2008). The *wereda* has a youthful population where 54.6 percent of the population is in the age group 10-29 years. The population density in 2010 was 208.2 persons per square kilometer; which is about 1.8 times the density of the ANRS and 2.8 times the density at the country level.

Mecha *Wereda* has basically a subsistence-based cereal-dominated mixed agricultural economy where the majority (93.17%) of the *wereda's* population is farmers. Land is an important factor of production, human labour and oxen are the principal sources of power and livestock are important household assets.

The other study district, Sodo Zuria *Wereda* is one of the 13 *weredas* in the Wolayta Zone of the SNNPR. The administrative center of Sodo Zuria *Wereda* is Sodo Town located at about 330 km south of Addis Ababa and 175 km southwest of the regional capital, Hawassa. In 2010, the *Wereda* had a population density of 430.7 persons per square kilometer; about 6 times greater than the density of the country and about three times than that of the SNNPR (CSA 2010). The population in the age group 10-29 years makes up 52.4 percent of the total population.

The economy of Sodo Zuriawereda is characterized by a subsistence mixed farming system where *enset* (*false banana*) farming is intermingled with the production of cereals, root crops and coffee in a regime of intensive cultivation. It is characterized by diminutive landholdings whereby an overwhelming majority of the farming households (78.21%) have less than half hectare of cultivated land. Most farming households lack oxen, the most important draught power used in tilling the land (Figure 1).

Survey design, sampling and selection of migrant-sending households

This study employed a hybrid of exploratory and concurrent triangulation mixed methods design. In a two-phase mixed methods exploratory design, the results of the qualitative method were used in the development of a survey instrument with the view to explore the phenomenon in-depth and measure its prevalence; and to identify important variables for quantitative study. In the validating quantitative data model of the triangulation variant mixed methods design, attempt was made to include open-ended qualitative questions with the quantitative survey instrument that can be used to validate, expand, interpret and embellish the quantitative survey findings. Cross-sectional design was employed in this study as it is best suited to studies aimed at finding out the prevalence of a phenomenon. Household heads⁷ provided information about the outmigrant⁸ family member/s and reasons for moving out.

In order to identify the target sample households, a multi-stage sampling technique was employed. At the first stage, two '*weredas*' were selected purposively, one from West Gojjam Zone and the other one from Wolayta Zone for comparative study (Table 1). Identification of the study *weredas* was considerate of the intensity of youth outmigration affirmed from literature and through observation in the zonal, regional and national capitals; and the

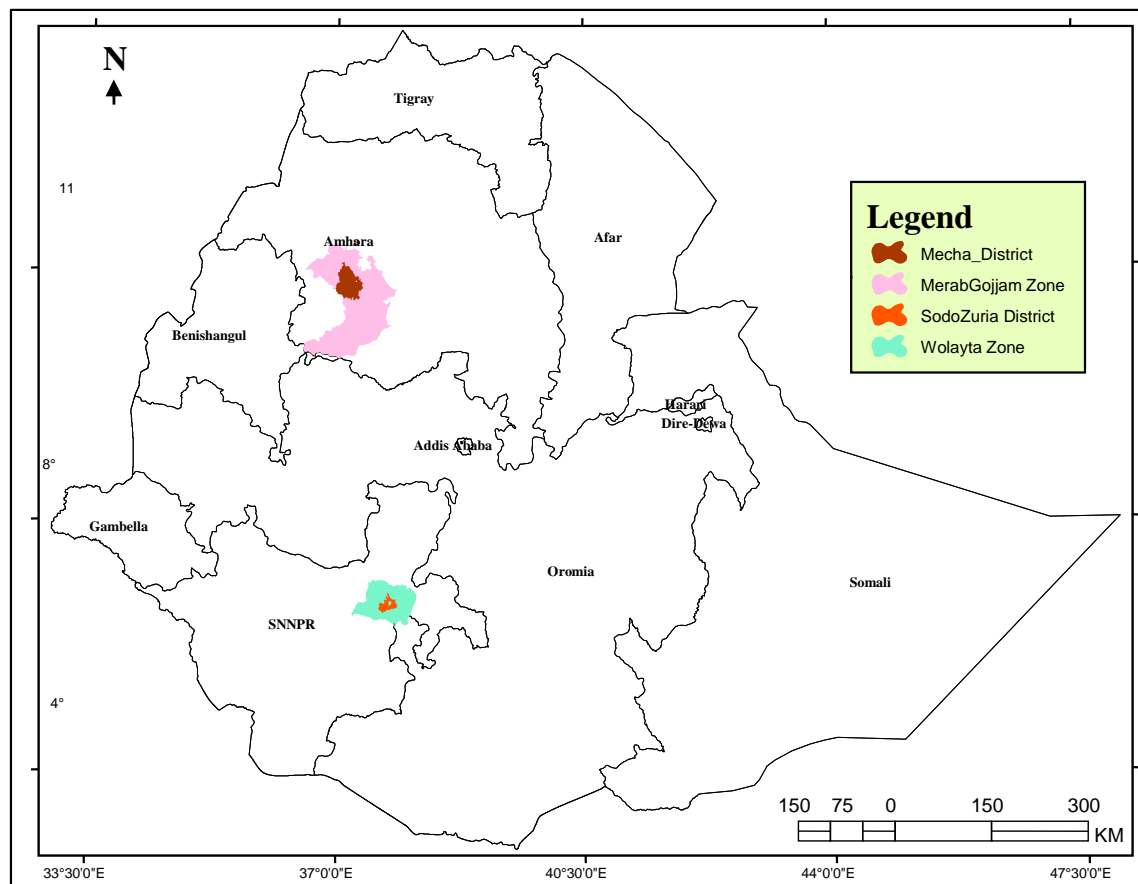


Figure 1. Map of the study districts (weredas) in the national setting.

Table 1. Distribution of the sampled migrant-sending households by the study geographical units.

Region	Zone	Woreda	Selected Kebele	Total HHs	Identified migrant-sending HHs	Sampled migrant-sending HHs	
ANRS	West Gojjam	Mecha	Adjoining Merawi	Enamirt	1176	287	34
			Town	Enashenifalen	1681	401	48
			Farther from	AmaritWenz	2349	376	45
			Merawi Town	Gosh Meda	1285	196	23
			Total		6491	1260	150
SNNPR	Wolayta	Sodo Zuria	Adjoining Sodo	BossaKacha	662	211	46
			Town	OfaGendabe	763	235	52
			Farther from Sodo	AmachoKodo	532	122	27
			Town	GiloBisare	545	114	25
			Total		2502	682	150
Grand total				8993	1942	300	

socioeconomic condition of the weredas. Second, out of the selected 'weredas' four *kebeles* were selected in every direction off the *wereda* capital purposively again in accordance to migration

intensity and proximity to the *wereda* capitals (two nearest- i.e. within 10 km distance from the *wereda* town and two farthest *kebeles* that are more than 10

kms distance away from the *wereda* capitals- within the two selected 'weredas' making a total of four *kebeles* in each *wereda*) for better representation.

Once the smallest geographic study units (rural *kebeles*) were selected, however, the selection of the migrant-sending households was made on the basis of probability sampling techniques for the sake of ensuring representativeness. Since the number of migration affected households in the study *weredas* was unknown a sampling frame was created with the assistance of development agents, who were of course later engaged in the actual data collection, after an initial house-to-house survey meant to identify households with and without migrant members. During the initial migrant-sending households' identification survey, caution was made to consider only the households with migrant members, not commuters, especially in the *kebeles* that are nearby the *wereda* capitals. As the number of households identified for the study from the eight *kebeles* (the sampling frame) was too many, the desired sample size for the study was obtained using proportional stratified sampling techniques (the *kebeles* were considered as strata).

The Agrawal (2006) statistical formula was used in the determination of the sample size for this study for a better representation of the study population.

$$n = \frac{N}{1 + N(e)^2}$$

Where; n= is sample size

N= is the population from which the sample is drawn

e =is the error which is supposed to be 0.05

The migrant-sending household population identified from the four selected *kebeles* in each of the two *weredas* through house to house survey was 1942. Application of the aforementioned formula yielded a representative sample of about 331. However, for ease of treatment and as it doesn't put representation into question, data from 300 migrant-sending households was collected. For simplicity of comparison between the two migrant-sending *weredas*, 150 migrant-sending households were taken from each *wereda*, of course keeping proportional allocation from the selected *kebeles*.

Methods of data acquisition

The primary data used in this study were obtained through a questionnaire survey which covered 300 migrant-sending household heads that had at least one young departed family member within the last ten years. The survey instrument was developed after intensive review of literature and the collection and preliminary analysis of data obtained through interview using open-ended questionnaire applied over ten household heads in each *wereda*. The instrument was pre-tested on ten selected households in each *wereda* and the necessary amendments were made. The actual data collection from the rural households using the survey instruments was carried out from February to May 2011. These months could be considered as the slackening period in agricultural activity after the main harvest so that farmers have relatively ample time to cooperate and feel less anxious of their time to respond to the survey questions. The primary survey data were collected by eight trained development agents (two interviewers in each *kebele*) recruited from selected *kebeles* in each *wereda*. In addition, in-depth interviews were made with selected migrant-sending households, community leaders, local administrators, extension workers and potential and actual migrants.

Data analysis

Descriptive statistics were used to examine the impact of youth

outmigration on the household's socioeconomic condition, labour availability and household's coping mechanisms; and amount and utilization of remittance by the migrant-sending households. Percentages, means, variance and ratios were commonly utilized. Multiple linear regression technique was used to make analysis of the determinants of the amount of remittance received by the rural migrant-sending and remittance-receiving households. For the descriptive and inferential statistical analysis, the Statistical Package for Social Scientists (SPSS version 18) was used. The qualitative data collected using observations by taking field notes on activities and behaviors; in-depth interviews with open ended questions; and focus group discussions were used for the discussion.

RESULTS AND DISCUSSION

Migration and rural households living conditions

Migration is instrumental for the enhancement of the livelihoods of rural households through supplementary income. It could be assumed that the remaining family members get more farm plots and other assets like livestock as a result of the departure of a family member. The effect of young people migration on the migrant-sending household's socioeconomic condition is presented in the following sections.

Data presented in Table 2 summarize the socio-economic impacts of youth outmigration on the rural households. Migrant-sending households have reported an improvement in their household debt repayment position owing to the financial contributions of the departed members (28.3%) and are able to use improved seeds and fertilizer (26.7%). They also indicated that the departure of a young family member gives an opportunity for the remaining members to get more farm plots (27.3%). Migrant-sending households also have got an avenue of improving their income and asset position (27.0%) and the departure of a young family member was also instrumental to the augmentation of family member's education and medication. On the other hand, the migrant-sending households have been less involved in leasing and working on more land using migrant remittance (2.3%).

Table 2 also illuminates the variation in the real and perceived advantages and disadvantages of youth outmigration for migrant-sending rural households by location. A significantly large proportion of migrant-sending households in Mecha *Wereda* (43%) indicate that remaining family members get more farm land as a result of the departure of a young family member/s while the proportion is only 11.3% for Sodo Zuria migrant-sending households who almost have miniscule and indivisible farm plots. Similarly, the percentage of migrant-sending households who are able to use improved seeds and chemical fertilizers on the land through migrant remittances is higher among the Mecha *Wereda* migrant-sending households (45.3%) compared to the Sodo Zuria ones (8%). The cereal based farming system dominant in Mecha *Wereda* calls for the use of

Table 2. Migrant-sending households indicating impact of youth outmigration on their socioeconomic condition.

Effect of young people migration on the migrant-sending household	Migrant-sending households' location					
	Mecha Wereda		Sodo Zuria Wereda		Total HHs	
	No. of HHs	% of HHs	No. of HHs	% of HHs	No. of HHs	% of HHs
Improved household debt repayment position	52	34.7	33	22.0	85	28.3
Remaining members get more farm plots	65	43.3	17	11.3	82	27.3
Household income & asset position improved	45	30.0	36	24.0	81	27.0
Able to use improved seed, fertilizer	68	45.3	12	8.0	80	26.7
Non-farm/off-farm income generation increased	34	22.7	37	24.7	71	23.7
Improved family member's education/ medication	39	26.0	29	19.3	68	22.7
Household income and asset position declined	28	18.7	14	9.3	42	14.0
Non-farm income generation decreased	18	12.0	12	8.0	30	10.0
Leasing and working on more land	5	3.3	2	1.3	7	2.3

Source: Field survey, February-May 2011.

chemical fertilizers on the distant fields than the sort of system dominant in Mecha Wereda calls for the use of agro-forestry type home-garden enriched by organic fertilizer evident in SodoZuriaWereda.

Migration and remittance

Remittances generated by internal migration have been overlooked and given little attention. Although the individual quantities are smaller, the total volume of internal remittances is likely to be enormous because of the numbers of people involved. Remittance has numerous socioeconomic impacts which include enhanced opportunities and improved livelihoods for the sending households and economic advancement in the community of origin at large (IOM, 2005; Samal, 2006).

Remittance channels, levels and frequency

Level of remittance

Levels of remittances vary depending on a range of factors such as accessibility of the home village, employment opportunities and the type of occupation the migrant is engaged at destination, duration of residence at destination, costs of living, ease of remitting, and the orientation of the migrant. The number of years a migrant is away from home has a direct impact on the amount of remittance sent by the migrant family member. Less remittance is sent during the initial hectic periods of finding a job, adjusting to the new location and community, and of working on lower wages. Migrants' remittances also decline as the duration of residence in the destination increases as migrants tend to establish their own family, be integrated more into the urban way of life and their demand for the urban goods and services and expenditure increases as the number of years they

stay in the destination area increases thereby making it difficult for them to send back remittance to the area of origin. Attachment to the home area gradually fades away; and the number of close relatives dwindles with an extended duration of residence away from home and the motivation to send remittances also diminishes. Another reason for a decline in the amount of remittances sent by the migrants includes the growing to adulthood of brothers and sisters, nephews and nieces who used to demand payments for tuition fees.

The average amount of money, excluding gifts in kind, received by each migrant-sending household from the out-migrating family members was 1045.40 *birr*² per year (standard deviation=676.8). The maximum annual receipt of remittance was 5000 *birr* while the minimum was 200 *birr*. More than half of the migrant-sending households (59.1%) received less than one thousand *birr* a year; while an overwhelming majority of them (85.1%) had received less than two thousand *birr* from the migrant members.

The average amount of money, excluding gifts in kind, received by a migrant-sending household from the out-migrating family members in Mecha Wereda was 1213.8 *birr* per year (standard deviation = 697.7); the minimum and maximum amounts ranging from 200-4000 *birr*. On the other hand, The average amount of money, excluding gifts in kind, received by a migrant-sending household from the out-migrating family members in Sodo Zuria Wereda was 1491.17 *birr* per year (standard deviation = 1410.1); the minimum and maximum amounts ranging from 150-5000 *birr*. The high average amount of remittance received by a migrant-sending household in Sodo Zuria Wereda could be associated with the relatively large number of migrants departing from each household; short distance moves of the migrants out of the village and the frequent visits migrants make with some amount of remittance they bring home; and the higher household poverty levels as manifested in food aid

and the migrants' greater motivation of supporting their parents.

Frequency of remittance

The frequency of remittance varies with distance from the destination, the presence of very close relatives in the village, income levels of the migrant at destination, economic background of the migrant-sending household, duration of residence away from home, and type of occupation of the migrant. Where the village is no great distance from the destination, the migrant often takes money back or a relative visits him/her to collect. Waged migrants who earn higher per capita incomes are likely to send more money frequently back to the village. The more frequent money is received by rural families from rural out-migrants, the smaller could be the amount of money.

The number of times a migrant sends remittances to his parents and relatives in rural areas varies considerably from one household to the other. Most respondents said that remittances are irregular and usually sent following annual festivals like New Year, *Meskel* (Finding of the True Cross celebrated on September 24), *Gena* (Birthday of Jesus Christ), *Timket* (Ethiopian Epiphany) and Easter. Other intermittent causes of remitting by the migrants is to assist relatives back home conducting marriage ceremonies, funerals and as a backup for hardships.

The average number of times a migrant-sending and remittance recipient household received remittance per year was 1.89 times. The highest number of times a migrant-sending household received remittance was found out to be 12 times whereas the minimum number of times remittance was received within a year was only once. It was disclosed that households whose departing youth are engaged in professional activities receive remittance more regularly than those whose migrant members are involved in casual labour. This could be because of the low level and erratic nature of income from the informal activity, escalating living costs and lack of saving habits. Slightly more than half of the investigated migrant-sending households (51.3%) have received remittance at least once in a year. Closer to three-fourth of the migrant-sending households (72.8%) indicated that it took only two years for rural migrant youth to send the first remittance to the family. Most migrant-sending households (83.1%) receive money from their departed members up to three times in a year.

Remittance channels

The outlets of receiving money reported by the migrant-sending households include amounts collected from banks; from individuals such as relatives, friends,

villagers and drivers; as well as money brought to the household by the migrants themselves personally during visits. Most respondents stated that migrants prefer to bring the money they saved during one of the annual festivals, especially *Meskel* (in SodoZuria), New Year and Easter (in Mecha) and spent it over consumption items during the festivals.

Table 3 presents the channels through which remittances are relayed from the migrant to the migrant-sending households. Migrant-sending households received remittances mainly from visiting migrants themselves (83.8%), followed by visiting relatives and friends (48.7%). Remittances are most often taken back home personally or are sent through the hands of individuals coming to attend festivals in the village. Other remittance channels include banks and drivers.

Remittance utilization by the migrant-sending households

Studies indicate that the amount of remittances received and the manner of utilization in the areas of origin greatly impact the socioeconomic status of the migrant-sending households (De Haan and Yaqub 2008). Remittance augments the income status of receiving households, improves human capital formation, and increases household consumption and investment (Emerta et al., 2011).

The study disclosed different purposes on which the bulk of remittances were spent by the migrant-sending households. As one can decipher from Table 4, the predominant uses to which remittance are put in order of importance were purchase of seed, fertilizer, pesticide/insecticide (59.1%); buying clothing (57.8%); purchase of household goods/furniture (53.8%); and loan/debt repayments and land tax payment (42.9%). On the other hand, a limited proportion of migrant remittances were put in the hiring of labour on the farm to offset migrant labour. This is a true indicator of the disguised superfluous rural labour under conditions of diminution in landholdings and absence of intensification. None of the remittance receiving migrant-sending households in both locations has indicated any form of saving of the money they have received from their departed member. This could be attributed to factors such as the limited amount of remittance received, the existing limited saving culture of the rural people, or the widespread household poverty that absorbs all the available cash income into the household consumption basket.

The use of remittances for satisfying daily needs and expenses including food is likely to improve food security and nutritional status. The money migrant-sending households collected from their migrating family members could be spent on covering medical/health care expenses or education which can improve the livelihood prospects of future generations. Migrants assist younger

Table 3. Annual amount and frequency of remittance received by the migrant-sending households.

Attribute	Migrant-sending households' location				Total HHS	
	Mecha Wereda		Sodo Zuria Wereda		No. of HHS	% of HHS
	No. of HHS	% of HHS	No. of HHS	% of HHS		
Remittance recipient households	94	62.7	60	40.0	154	51.3
Amount of money(birr) on average received						
Up to 500	15	16.0	21	35.0	36	23.4
501- 1000	39	41.4	16	26.7	55	35.7
1001- 1500	17	18.1	4	6.6	21	13.6
1501- 2000	16	17.0	3	5.0	19	12.4
Above 2001	7	7.5	16	26.7	23	14.9
Total	94	100.0	60	100.0	154	100.0
Number of times remittance is received/year						
1	38	40.4	10	16.7	48	31.2
2	40	42.6	16	26.7	56	36.3
3	13	13.8	11	18.3	24	15.6
4 and above	3	3.2	23	38.3	26	16.9
Total	94	100.0	60	100.0	154	100.0
Remittance channels for receiving HHS						
Bank	12	12.8	26	43.3	38	24.7
Visiting relatives and friends	48	51.1	27	45.0	75	48.7
Commercial vehicle drivers	14	14.9	5	8.3	19	12.4
Visiting migrants themselves	78	82.8	51	85.0	129	83.8

Source: Field survey, February-May 2011.

Table 4. Remittance-receiving migrant-sending households by the types of uses to which the received money is put (multiple response allowed).

Use to which remittance is put	Migrant-sending remittance receiving households' location				Total HHS (n=154)	
	Mecha Wereda (n=94)		Sodo Zuria Wereda (n=60)		No. of HHS	% of HHS
	No. of HHS	% of HHS	No. of HHS	% of HHS		
Purchase of seed, fertilizer, pesticide, insecticide	68	72.3	23	38.3	91	59.1
Buying clothing	53	56.4	36	60.0	89	57.8
Purchase of household goods/furniture	59	62.7	24	40.0	83	53.8
Loan/debt repayments & land tax payment	43	45.7	23	38.3	66	42.9
Payment of education of and medication	32	34.0	26	43.3	58	37.7
Improving or building housing	37	39.3	20	33.3	57	37.0
Purchase of food items for household	17	18.1	34	56.7	51	33.3
Funerals, holiday festival expenditure, birth, wedding	26	27.7	22	36.7	48	31.2
Buying cattle and other livestock	25	26.6	10	16.7	35	22.7
Purchase of agricultural tools and implements, including water pumps for irrigation	14	14.9	17	28.3	31	20.3
Starting new business	10	10.6	18	30.0	28	18.2
Purchase of consumer durables such as radio, tape recorder, watch, torches and ornaments	5	5.3	22	36.7	27	17.5
Payment for hired labour	22	23.4	4	7.7	26	16.8
Renting/leasing land	6	6.4	5	8.3	11	7.1

Source: Field survey, February-May 2011.

siblings by covering accommodation expenses and tuition fees especially for those who do not join governmental higher learning institutions. Households also indicated that rural children receiving remittances in the form of cash income or presents, in the form of for example clothing, find it an enormous motivation to pursue their schooling and persevere in its completion to assume an urban job. The use of remittances for consumer durables (radios, bicycles, milling machines, torches) could also help in making the lives of rural households simpler.

Households take loans both from private money lenders and micro finance institutions to buy fertilizers and finance micro business. They often take money without defined micro investment projects. In a situation where their projects turn out to be a failure and where the money is spent as part of the consumption basket, and where other income obtaining opportunities are virtually inexistent, family members resort to migration to get cash income to repay debt.

For rural households, a house is not only a living place for the family, but it is also the basic source of social prestige and pride for the household among the villagers. Migrants, particularly educated and successful ones, feel ashamed if they are unable to build modest quality house for their family who are still living in an old bad-quality house. Migrants build or are assisting their parents build a housing unit even if they do not have the intention to go back to the village for residence. What migrants aspire to do is to change the thatched-roofed housing units with corrugated iron roofing. For a migrant, improving a family's residence is considered to be the hallmark of success by the villagers.

In the study weredas, it was found that there were migrant-sending households that invested their remittances in renting/ buying land; and those who used remittances to purchase agricultural inputs such as improved seed, fertilizer, insecticides and pesticides to increase agricultural productivity. A substantial number of households also invested remittances in buying livestock mainly oxen that could be used as draught power in agriculture. Households also buy sheep and goats for breeding in order to get cash income. As an aspect of diversification of livelihoods outside agriculture, some households are using remittances to be engaged in small business such as buying and selling of cereals in the local markets. The overall impact of these migration related supplementary income for the migrant-sending households is asset and capital formation, improved livelihoods and household living conditions.

Determinants of remittance received by migrant-sending households

Different factors determine whether migrants send remittances and the amount as well as frequency of remittance transfers. These factors could be related with the characteristic feature of the migrants; the nature of

the destination area; and family background of the migrants.

Multiple linear regression technique was used to make analysis of the determinants of the amount of remittance received by the rural migrant-sending households in the selected weredas. The dependent variable, therefore, was the annual amount of remittance (in *birr*) received by the rural migrant-sending households. The independent or explanatory variables from x_1 - x_{22} that were believed to determine the amount of remittance received by the migrant-sending and remittance-receiving rural households identified through meticulous literature review and own observation of the study areas as well as preliminary survey are listed hereunder:

- x_1 : Number of migrants moving out of the household,
- x_2 : Age of the migrant at the time of departure,
- x_3 : Educational level of the migrant (completed grade level) at the time of departure,
- x_4 : Current age of the household head in completed years,
- x_5 : Marital status of the head of the household (1: married; 0: divorced/separated),
- x_6 : Sex of the household head (1: male; 0: female),
- x_7 : Educational level of the household head from which the first young migrant departed,
- x_8 : Current size of farmland of the household (per capita land holdings in hectares),
- x_9 : Current number of heads of the livestock possessed by the household,
- x_{10} : Average annual amount of agricultural produce obtained in a year in quintals per HH,
- x_{11} : Adequacy of food produced by the HH to feed family all year round (1: Yes; 0: No),
- x_{12} : Government/NGO aid to overcome food insufficiency by HH (1: Yes; 0: No),
- x_{13} : Income source other than agriculture/ engagement in non/off-farm employment by the household/ (1: Yes; 0: No),
- x_{14} : Current number of siblings of the migrant-sending HH from which the migrant departed,
- x_{15} : Occupation the migrant is engaged at destination (1: professional; 0: non-professional),
- x_{16} : Number of years the migrant is away from home (duration of residence away from origin),
- x_{17} : Number of times the migrant-sending household is visited by the migrants in a year,
- x_{18} : Number of times the migrant-sending household receives remittance in a year,
- x_{19} : Sex of the migrant (1: male; 0: female),

x_{20} : Relation of the migrant with head of the household (1: child; 0: step-child),

x_{21} : Distance of the destination area covered by the migrant,

x_{22} : Receiving presents from the out migrant family member (1: Yes; 0: No),

The regression analysis excluded migrant-sending households who didn't receive remittance, and the total number of the remittance-receiving migrant-sending households considered in the regression analysis was 154. The overall significance of the model for the variation in the amount of remittance received among the remittance recipient migrant-sending households was tested with ANOVA. The regression model was statistically significant with F ratio of 5.502 and $\alpha= 0.00$. The assumption of normality was assessed by Kolmogorov-Smirnov and Shapiro-Wilk tests with the view to ensure that the errors are identical and independently distributed. As the test of normality of the original data violated the assumption of normality because the p value was less than five percent ($p=0.00$), the data had been transformed by natural logarithm (\ln of remittance). After the data was transformed, it was again checked for normality and was found to be normal as the p value was greater than five percent i.e. $p=0.054$. The linear regression was, therefore, done on the transformed

remittance data. Test of linearity was done on the transformed data and it was found that the predicted value versus the dependent variable showed the presence of linear relationship between predictors and the dependent variable and therefore, the assumption of linearity is satisfied. There existed random structure in the plot of standardized residuals versus standardized predicted value and therefore, there is no problem of heteroscedasticity. The variance inflation factor (VIF) in the collinearity statistics for all variables in the regression model was less than 10 so that there is no problem of multicollinearity. All in all, the assumptions for fitting a linear regression model were satisfied.

The Regression model

$$\ln Y_i = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_{22} x_{22} + e$$

Where Y_i = annual remittance received by the i^{th} household

$x_1 - x_{22}$ = explanatory variables

The reduced model of the regression analysis is therefore,

According to data presented in Table 5, all the selected explanatory variables included in the regression model

$$\ln Y_i = 6.271 + 0.349 x_1 + 0.112 x_3 + 0.234 x_5 + 0.059 x_{14} + 0.351 x_{15} + 0.276 x_{18} - 0.320 x_{22} + e$$

explained 67.8 percent ($r=0. 0.824$ and $r^2= 0.678$) of the variation in the annual amount of remittance received by the migrant-sending and remittance receiving households. From the explanatory variables, number of youth migrating from the family (x_1), educational level of the migrant at departure (x_3), marital status of the head of the household (x_5), current number of siblings of the household from which the migrant departed (x_{14}), type of job the migrant is engaged at destination (x_{15}), number of times the household received money within one year from migrants (x_{18}) and whether the household received presents from the out migrant family member (x_{22}) were found to be significant in explaining the variation in the annual amount of remittance received by the migrant-sending households. Of course, the association of the explanatory variable, number of times the household received money within one year from migrants with the dependent variable was found to be statistically significant even at 99% confidence level.

Table 5 also portrays that the number of migrants from the household, educational level of the migrant at departure expressed in grade level completed, current number of siblings in the household from which the

migrant departed, and number of times the household received money within one year from migrants determined the response variable positively. When the number of times the migrant-sending household receives money increases by one more time within one year, the amount of money increases by 32 percent on average as ($e^{0.276}$ where $e=2.718282 \dots$) is 1.32. An increase of one migrant member from the family brings about a 42 percent increase of remittance received by the migrant-sending and remittance-receiving household since ($e^{0.349}$ where $e=2.718282 \dots$) is 1.42. A unit increase in the grade level of the migrant results in 12 percent increment in the amount of remittance received by the migrant-sending household ($e^{0.112}$ where $e=2.718282 \dots$) is 1.12. On the other hand, if the number of siblings of the household from which migrants depart increase by one unit, the amount of remittance the household receives increases by six percent ($e^{0.059}$ where $e=2.718282 \dots$) is 1.06.

Analysis of the dummy variables that include the type of occupation the migrant is engaged at the current destination, marital status of the head of the household from which the migrant departed, and whether the household is receiving presents from the out migrant

Table 5. Summary of the results of the multiple regression analysis.

Explanatory variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std.Error	Beta			Tolerance	VIF
(Constant)	6.271	0.849	-	7.383	0.000	-	-
Current age of the head of the household in completed years	0.000	0.006	0.002	0.025	0.980	0.624	1.603
Sex of the head of the household	0.262	0.184	0.148	1.422	0.158	0.381	2.621
Educational level of the household head from which the first young migrant departed	-0.103	0.128	-0.069	-0.802	0.424	0.564	1.773
Number of migrating from this family	0.349	0.063	0.088	0.782	0.0436	0.327	3.063
Age of the migrant during departure in completed years	0.008	0.018	0.038	0.475	0.636	0.641	1.559
Educational level of the migrant at departure	0.112	0.015	-0.064	-0.828	0.0409	0.693	1.443
Current number of siblings from which the migrant departed	0.059	0.029	0.162	2.009	0.047	0.639	1.565
Number of years the migrant is away from home	-0.022	0.022	-0.091	-1.004	0.318	0.505	1.979
Sex of the migrant	-0.213	0.133	-0.122	-1.604	0.111	0.720	1.389
Relation of the migrant to head of the household	-0.605	0.319	-0.136	-1.898	0.060	0.808	1.238
Current size of farmland in hectare	0.050	0.094	0.061	0.530	0.597	0.315	3.175
Average annual amount of farm produce the HH earned in qntl	-0.005	0.004	-0.003	-0.021	0.984	0.193	5.185
Government/NGO aid as a way of overcoming food insufficiency by the household	0.137	0.185	0.059	0.743	0.459	0.657	1.522
Adequacy of food produced by the household to feed family all the year round	-0.040	0.127	-0.027	-0.317	0.752	0.567	1.765
Number of heads of all livestock possessed by the household	0.021	0.014	0.165	1.488	0.139	0.338	2.961
Income source of the HH other than agriculture/ non-farm employment	0.071	0.111	0.047	0.638	0.525	0.767	1.304
Distance of destination area to this community in kilometers	0.002	0.005	0.037	0.324	0.747	0.313	3.195
Number of times the HH is visited by the migrants within one year	-0.027	0.033	-0.060	-0.804	0.423	0.741	1.350
Number of times the HH received money within one year from migrants	0.276	0.060	0.442	4.584	0.000	0.446	2.244
Receiving presents from the out migrant family member	-0.320	0.130	-0.192	-2.458	0.015	0.681	1.468
Marital status of the head of the household	0.234	0.188	0.132	1.247	0.0215	0.367	2.721
Type of job the migrant is engaged at destination	0.351	0.165	0.166	2.124	0.036	0.681	1.469
R	0.824	-	-	-	-	-	-
R Square	0.678	-	-	-	-	-	-

family members had significantly determined the dependent variable table 5. Migrant-sending and remittance receiving households that had professional migrants received remittance which could be greater by 42 percent than households who have non-professional migrants as ($e^{0.351}$ where $e=2.718282$...) gives a value of 1.42. Likewise migrant-sending and remittance-receiving households whose marital status was married received 26 percent more remittance ($1.26 = e^{0.234}$ where $e=2.718282$...) than households who were either widowed or divorced. Similarly, migrant-sending and remittance-receiving households that received presents from the outmigrant family member received remittance which is 27 percent ($0.73 = e^{-0.320}$ where $e=2.718282$...) lower than households who did not receive presents.

CONCLUSION AND RECOMMENDATIONS

Rural out-migrants are invaluable resources for sending areas as they often send or bring back skills, money and

modern values which could help in improving agricultural practices, and transferring valuable and improved technologies. Migration improves the rural household's income, debt repayment position, asset formation, and quality of life enhancement. Outmigration harmonizes human-environment relationships, eases the pressure over agricultural land resources, and minimizes land fragmentation.

Remittances are usually received following annual festivals and as a backup for hardships mainly from visiting migrants themselves. The most important determinants of the amount of remittance received by the migrant-sending households are number of youth migrating from the family, number of times the household received money within one year, educational level of the migrant and type of job the migrant is engaged at destination. The major uses to which remittances are spent by migrant-sending households include acquisition of farm inputs and agricultural tools, purchase of household goods/furniture; and buying clothing and repayment of loans and land tax payment. Remittances raise migrant-sending household's incomes and asset position, increase levels of consumption, contribute to

averting risks resulting from drought, pests and famine, reduce the necessity to incur debt and enhance household debt repayment position, enable recipients to use improved agricultural inputs, improve migrant family member's education and medication, and encourages capital formation and technological change. Therefore, improving the educational levels of outmigrants, strengthening migrant-parent relations, improvements in rural and small town infrastructure such as roads, telecommunication and banks are supposed to increase remittance frequency and levels and ease money transfer. Educating rural people on the best use of remittances and inculcating the culture of saving and investment for sustained rural economic development and enhanced wellbeing should be given due attention.

Migrant-sending households are gradually developing positive attitude to youth outmigration. The departure of the young family members is found to have very little impact on agricultural labour shortage, and reduced productivity as they tend to be underemployed on the family farm. Rural-urban youth migration in the study area has not reached the labour drain level and it may not do so in the foreseeable future under conditions of population increase, paucity of farmland, diminishing grazing land and livestock resources as well as lack of rural jobs. Therefore, it can be argued that any policy or action which restrains mobility or provides incentives for people to stay on their land is likely to hinder economic growth and poverty reduction in the long run

Conflict of Interests

The author has not declared any conflicts of interest.

ACKNOWLEDGEMENTS

The researcher is grateful to the participants, OSSREA, Addis Ababa University, Dilla University, NUFU Project, and Dr. Solomon Mulugeta.

Notes

- 1. Youth:** The Ministry of Youth and Sports defines youth as part of the society who are between 18-29 years.
- 2. Remittances:** monetary transfers sent through formal or informal channels from the migrant's destination area to households and relatives in his/her area of origin, excluding transfers in the form of kind/goods.
- 3. Migrant-sending household:** a household that contained at least one person who was previously a member of the household, but had left within the last ten years to live or work elsewhere.
- 4. Household (HH):** A household consists of a person or groups of persons, irrespective of whether related or not, who reside together or occupy a housing unit as living quarters and have common cooking and eating

arrangement.

5. Wereda: is the administrative unit comprising of numerous *kebeles*. It is also used as a synonym with district.

6. kebele: is the smallest administrative unit in the administrative hierarchy in rural Ethiopia. It has also been called Peasant Association.

7. Household head (HHH): is a person who provides economic support or manages the household; selected by household members for reasons of age or respect regardless of sex

8. Outmigrant: someone who was a usual resident of the household but who has left during the last ten years to work and live elsewhere. An out migrant who has left six months ago will be included while one who is away for a short visit to relatives, vacation and business trips is not included

9. Birr: is the basic unit of currency in Ethiopia; equal to 100 cents (1 USD was about 17.4 Ethiopian birr in March 2012).

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